

What is claimed is:

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1. A monolithic video signal processing circuit comprising
within a single substrate:
means for accepting a video signal;
means for detecting the amplitude of accepted signals and for
amplifying said accepted signals to a specific level; and
means for accepting said specific level amplified video signals and
for processing said amplified signals to reduce all but the IF frequencies
present in said video signals while amplifying said IF frequencies to a
certain fixed value for presentation to an output of said circuit.

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2. The invention set forth in claim 1 further comprising:

means connected between said output of said circuit and said
processing means for accepting said presented signals and for
amplifying said accepted signals a fixed amount.

3. The invention set forth in claim 2 wherein said amplification
by said last-mentioned means is low with respect to said amplification
by said detecting and amplifying means.

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4. The invention set forth in claim 1 wherein said detecting and
amplification means is a VGA.

5. The invention set forth in claim 1 wherein said accepting
means includes:

means for removing therefrom certain unwanted frequencies.

6. The invention set forth in claim 1 wherein said specific level
for said amplification is the maximum level acceptable as an input to
said processing means to avoid distortion of said video signal.

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7. The method of processing a video signal comprising the steps

of:
presenting said video signal to the input of a monolithic circuit;
detecting the amplitude of presented signals and amplifying said
presented signals to a specific level;

5 accepting said specific level amplified video signals and further
processing said amplified signals to reduce all but the IF frequencies
present in said video signals while amplifying said IF frequencies to a
certain fixed value for presentation to an output of said monolithic
circuit.

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8. The method set forth in claim 1 further comprising the step
of:

accepting said presented signals before presentation to said
output of said monolithic circuit and amplifying said accepted signals a
fixed amount, and

5 presenting said fixed amount amplified signal to said output of
said monolithic circuit.

9. The method set forth in claim 8 wherein said last-
mentioned amplification is low with respect to the amplification of the
detection and amplification step.

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10. The method set forth in claim 7 wherein the amplification
of the amplification and detection step is accomplished by a VGA

11. The method set forth in claim 7 further including the step
of:

ahead of said detection and amplification step removing from the
presented video signal certain unwanted frequencies.

12. The method set forth in claim 7 wherein said specific level for said amplification is the maximum level acceptable as an input to said further processing step to avoid distortion of said video signal.

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18. A system for processing RF signals in a monolithic circuit, comprising:
an input to said circuit for receiving an RF signal;
a mixer having one input and one output, said input of said mixer means connected to said input;
5 a first filter having one input and one output, said input of said first filter connected to said output of said mixer;
a first amplifier having one input and one output, said input of said amplifier connected to said output of said first filter;
10 a second filter having one input and one output, said input of said second filter connected to said output of said first amplifier; and
a second amplifier having one input and one output, said input of said second amplifier connected to said output of said second filter, and said output connected to an output of said circuit.

14. The system as claimed in claim 13, wherein said first filter is a low-pass filter.

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15. The system as claimed in claim 13, wherein said first amplifier means is a VGA.

16. The system as claimed in claim 13, wherein said second filter means is an intermediate frequency, band-pass filter.

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17. The system as claimed in claim 13, wherein said second amplifier means is an FGA.

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18. A method of processing RF signals, the method comprising
the steps of:
receiving an input RF signal;
mixing said input RF signal with an operating frequency
signal to generate a first signal;
filtering said first signal to generate a second signal;
amplifying to a fixed level said second signal to generate a
third signal;
filtering said third signal to generate a fourth signal; and
amplifying said fourth signal a fixed amount to generate a
fifth signal.

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19. A method for processing RF signals as recited in claim 18,
wherein said step of filtering said first signal to generate said second
signal includes processing said first signal through a low-pass filter; and
wherein said step of amplifying said second signal to generate a
third signal includes amplifying said second signal by a variable gain
amplifier (VGA), the limit of said VGA being the maximum level
acceptable by said third signal filtering step without distortion.

20. A method for processing RF signals as recited in claim 19,
wherein the step of filtering said third signal to generate a fourth
signal includes processing said third signal through an intermediate-
frequency, band-pass filter.

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21. A method of processing RF signals as recited in claim 20,
wherein said step of amplifying said fourth signal to generate a fifth
signal includes amplifying said fourth signal by an FGA.